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(www.nbrt.georgetown.edu/pir), and The Institute for Genome Research
(www.tigr.org/tdb/tdb.html).

In the claims:

Please cancel claims 3-6 without prejudice or disclaimer.

Please amend claims 1 and 2 as follows:

A2
1. (Amended) A substantially purified nucleic acid molecule that encodes a maize or a soybean enzyme or fragment of said maize or soybean enzyme, wherein said maize or soybean enzyme is selected from the group consisting of:

- (a) triose phosphate isomerase;
- (b) fructose 1,6-bisphosphate aldolase;
- (c) fructose 6-phosphate 2-kinase;
- (d) vacuolar H⁺ translocating-pyrophosphatase;
- (e) invertase;
- (f) sucrose synthase;
- (g) hexokinase;
- (h) fructokinase;
- (i) NDP-kinase; and
- (j) UDP-glucose pyrophosphorylase.

2. (Amended) The substantially purified nucleic acid molecule according to claim 1, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753, wherein said nucleic acid sequence encodes at least a fragment of a maize or soybean triose phosphate isomerase; vacuolar H⁺ translocating-pyrophosphatase; sucrose synthase; hexokinase; fructose 1,6-bisphosphate aldolase; fructose 6-phosphate 2-kinase; invertase; fructokinase; NDP-kinase; and UDP-glucose pyrophosphorylase, respectively.

Please add new claims 7-17 as follows:

13 7. (New) A substantially purified nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753.

8. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 11.

9. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 446.

10. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 935.

11. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 1108.

12. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2042.

13. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2166.

14. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2252.

15. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2644.

16. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2681.

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A 17. (New) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2753.
